ANNUAL REPORT

ON

HEALTH OF BLACKPOOL

FOR 1895.

BY

A. JASPER ANDERSON, M.A., M.B., Oxon., D.P.H. Cantab,

MEDICAL OFFICER OF HEALTH.

THE CORPORATION OF BLACKPOOL

Blackpool:
Printed by Henry Maxwell & Co., 74, Church Street.
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To the Mayor Aldermen and Burgesses of the Borough of Blackpool.

Mr. Mayor and Gentlemen,

I have the honour to present to you my Fifth Annual Report on the Health of Blackpool, containing an account of the work done in the Sanitary Department during the year 1895.

The death-rate, as was to be expected after the exceptionally low death-rate and favourable climatic conditions of the previous year, was higher than in 1894, and slightly exceeded the average for the five years 1891—95. A number of persons in delicate health who survived through the favourable year of 1894, died under the more unfavourable conditions of 1895. This behaviour of the death-rates was noticeable for both England and Wales and the large towns.

The duties of the Sanitary Officials in a rapidly growing town like Blackpool, visited as it is by crowds of visitors, are peculiarly arduous, and I have to thank them for the zeal and loyalty with which they have assisted me in my efforts to attain to a perfect system of sanitary administration.

In the body of the Report many matters of importance are referred to, which I have no doubt will receive that attention from you which they merit.

I am, Mr. Mayor and Gentlemen,

Yours faithfully,

A. JASPER ANDERSON,

Medical Officer of Health.

Public Health Office, Blackpool,
February, 1896.

REPORT.

1.—VITAL STATISTICS.

A.—SUMMARY.

Area of Borough (exclusive of foreshore)	3,495 acres
Population (Census April 6th, 1891)	23,846 persons
Persons per House as per Census	4·84

	1894.	1895.
Ratable Value (General District Rate)	£211,974	£230,101
Do. (Borough Rate)	£220,175	£238,268
No. of Dwelling-Houses on Rate Book.........	6,355	6,888
Do. do. do. empty	82	77
Population of Residents estimated at middle of year from No. of inhabited houses..	30,337	32,943
Density of Population (persons per acre)......	8·68	9·43
Birth-rate (per 1,000 inhabitants)	23·93	26·77
Death-rate (gross) Do.	15·85	20·06
Infant mortality (per 1,000 births)...............	159·7	206·3
Zymotic rate (per 1,000 inhabitants)	1·38	3·31
Death-rate (corrected for Visitors)	11·9	16·33
Do. (corrected for age and sex distribution; factor 1·129)	13·45	18·44
Infant Mortality (corrected for visitors)	132	191·6
Zymotic rate (corrected for visitors)............	1·02	2·82

B.—POPULATION.

The population has been estimated, as in former years, by multiplying the number of inhabited houses in each of the six wards of the town by the average number of persons per house for each ward as given by the last census. This gives the population for each ward, and their sum is the population of the town.

There were in August, 1895, 6888 inhabited houses, and a resident population (excluding visitors staying in the town) of 32,943. All rates in this report, unless otherwise stated, are calculated upon this estimated population. There were 533 more houses on the rate-book in 1895 than in 1894. The population for 1895 would be 29,697, on the assumption that the rate of increase of the town since 1891 was equal to the rate between 1881 and 1891.

The increase of population, over the previous year has been 2,606, made up of 221 (the *natural increase*, excess of births over deaths), and 2,385, the excess of immigrants into, over emigrants from, the Borough.

The greatest increase (1,105) has taken place in Foxhall Ward, and the next (553) in Talbot Ward; whilst in Bank Hey there has been a slight decrease, owing to more houses having been converted into shops than new houses erected.

C.—BIRTHS.

During the year 876 births occurred in the Borough, but to these must be added as belonging thereto 6 births in Kirkham Workhouse, *i.e.*, 882 births (451 males and 431 females.) The birth rate was 26·77, as compared with 23·93 last year, and 27·4 for the decennium 1881-90. This is the highest rate since 1885, and is explained by the prosperous condition of the town at the present time. For England and Wales the rate during 1895 was 30·3, and for the 33 great towns 31·3.

The births include 44 illegitimate children, viz., 20 boys and 24 girls. The percentage of illegitimate births of total births was 4·99, and per 1,000 inhabitants the rate of illegitimate births was 1·33.

D.—DEATHS.

The deaths registered during the year were 661; and of these 123 occurred amongst persons staying temporarily in the town, and belonging to a population not included in my estimate of 32,943 persons. There were, therefore, 538 deaths amongst residents during the year ; including 6 deaths in Kirkham Workhouse (not in the Borough) of residents.

The gross death-rate was 20·06, and the rate amongst residents was 16·33. The gross death-rate is the highest since 1882, whilst the rate amongst residents was exceeded in 1891, and was then 18·2. If the rate amongst residents be multiplied by 1·129, the factor required for the age-and-sex-distribution of the population of Blackpool, to render the Blackpool death-rates comparable with the corrected death-rates published by the Registrar-General, a corrected death-rate of 18·44 for 1895 is given.

The death-rate for England and Wales during 1895 was 18·7, and for the 33 great towns 20·7, the latter becoming 22·3 when corrected for age-and-sex-distribution.

The population and the rates of the six wards of the town are given in the following table, the population of each ward being calculated on the number of inhabited houses. The average of the rates for the four years 1891-4, are given for comparison.

TABLE I.

Ward.	Population	Birth-rate.		Death-rate.		Zymotic Rate	
		1895	1891-4	1895	1891-4	1895	1891-4
Claremont......	4586	23·77	24·13	12·43	14·46	2·83	1·88
Talbot	8330	32·77	28·17	20·77	16·52	3·84	1·77
Bank Hey......	2316	14·25	11·28	12·09	13·03	nil.	1·61
Brunswick......	5372	21·41	21·30	16·57	14·04	1·86	0·97
Foxhall	8209	29·48	24·69	16·20	14·50	3·41	1·62
Waterloo	4130	25·18	19·66	14·04	15·48	2·42	1·58

The order of birth-rates for 1895 is Talbot, Foxhall, Waterloo, Claremont, Brunswick, and Bank Hey, and the order for the four years 1891-94 is about the same, except Claremont occupies the third place, Brunswick the fourth, and Waterloo the fifth.

The order of the death-rates for 1895 is Talbot, Brunswick, Foxhall, Waterloo, Claremont, and Bank Hey, whilst for the four years the order is Talbot, Waterloo, Foxhall, Claremont, Brunswick, and Bank Hey.

The order of zymotic rates is Talbot, Foxhall, Claremont, Waterloo, Brunswick, and Bank Hey. For the four years 1891-4 the order is Claremont, Talbot, Foxhall, Bank Hey, Waterloo, and Brunswick.

The zymotic rate for Bank Hey Ward was *nil*, *i.e.*, no death from zymotic disease occurred during the year. This shews how exceptional death-rates may be obtained when dealing with a small and specially selected community.

DEATHS IN CERTAIN AGE-GROUPS.

The death-rates per 1,000 *persons living within five definite age-groups* have been calculated, as also the rates for a thousand of each sex living within those limits, and are given in Table C in the Appendix.

Of a thousand children under five years of age 71 died last year as compared with 44 in 1894, and 56 in 1893. Males died in the proportion of 89 to 55 females in this age-group.

In the age-group 5 to 25 years the death-rate is almost the same, but the deaths of females to males is more disproportionate than usual, viz.: as 3·28 females to 1·4 males.

In the age-groups 25 to 65 years, and 65 to 75 years, the rates are slightly higher than usual, those of males being higher than those of females in accordance with the general rule.

Above 75 years the death-rate amongst males is less than last year, and amongst females greater. For the first time the death-rate amongst females exceeds that amongst males.

Deaths of Visitors.

In health resorts it is necessary to deduct from the total deaths those occurring amongst persons staying in the town. A few of the residents may die whilst visiting other places, so that this deduction of deaths is liable to give rates below the truth; but to diminish this tendency I include the deaths in institutions out of the Borough of persons belonging thereto. I have excluded 123 deaths as those of visitors, viz., 65 males and 58 females. Twenty-eight of these were under five years old, and 95 over that age. There were 9 deaths from phthisis, 22 from respiratory diseases, 13 from heart disease, and four from injuries, amongst these deaths. There were 16 deaths from the seven zymotic diseases, in some of which cases the infection had been contracted out of the town.

Length of Residence in Blackpool of Persons who Died during the Year 1895.

In Table II. the length of residence in Blackpool of persons who died during 1895 is given, classifying the deaths six in age-groups.

TABLE II.

Length of Residence of Persons who died during the year 1895.

AGE GROUP.	Deaths.	LENGTH OF RESIDENCE IN BLACKPOOL.															Born in Blackpool.
		7 days and under.	14 to 7 days.	1 month to 14 days.	3 months to 1 month.	6 months to 3 months.	9 months to 6 months.	12 months to 9 months.	2 to 1 year.	3 to 2 years.	4 to 3 years.	5 to 4 years.	15 to 5 years.	25 to 15 years	Over 25 years.	Indefinite.	
Under twelve months	182	1	1	5	3	2	...	...	1	...	...	...	...	...	...	2	167
1 year and under 5	78	4	6	1	3	1	1	1	3	1	1	...	...	...	...	...	56
5 and under 15	21	1	1	...	2	...	1	...	1	1	1	...	1	...	...	1	11
15 and under 25	24	2	1	...	3	3	2	2	3	...	...	...	1	2	...	...	5
25 and under 65	241	13	3	13	16	9	3	6	9	5	13	10	56	36	14	7	28
65 and over	115	4	...	8	4	2	1	1	5	2	5	9	30	16	15	1	12
Totals.....................	661	25	12	27	31	17	8	10	22	9	20	19	88	54	29	11	279

INFANT MORTALITY.

The rate of deaths of children under 1 year of age to 1,000 births reverted last year to the high figure which is usual in Blackpool, unless the summer months have a temperature decidedly below the average.

There were 182 deaths of children under twelve months old, and 882 births, *i.e.*, a rate of 206·3 per 1,000 births, as compared with 159 in 1894, 210·3 in 1893, and 155·9 for 1881-90.

Of the 182 deaths, 13 were of children not born in Blackpool. Leaving these out of consideration the corrected rate is 191·6, as compared with 132 in 1894, 192·8 in 1893, and 153·4 for the ten years 1883-92.

In Table F (in the Appendix) the quarterly rates are given, from which it is seen to vary from 120 in the first, and 176 in the second, to 254 in the third, and 210 in the fourth quarter.

During 1895 in England and Wales, 161 infants under 1 year old died out of 1,000 births. For the 33 great towns, the rate of infant mortality in 1895 was 182, ranging from 134 at Croydon, and 143 at Bristol, to 236 at Blackburn, 242 at Burnley, and 248 at Preston.

The causes of death are classified in the adjoining table under several headings, and also according to age at death. As in previous years 'Congenital Debility' and 'Asthenia' have been classified under premature birth, and 'Marasmus' under Atrophy.

TABLE III.—DEATHS, with AGES and CAUSES, of Children under 12 months old in 1895.

CAUSES OF DEATH.	1st day.	2nd day.	3rd day.	4th day.	5th day.	6th day.	7th day.	1st week.	2nd week.	3rd week.	4th week.	AGES BY MONTHS. 1st mnth	2nd do.	3rd do.	4th do.	5th do.	6th do.	7th do.	8th do.	9th do.	10th do.	11th do.	12th do.	TOTAL.
Premature Birth	7	...	5	2	1	1	2	18	4	1	..	23	5	1	...	...	...	1	...	...	...	...	...	30
Atelectasis	4	1	...	...	...	...	1	6	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	6
Congenital Malformations	...	1	...	...	...	...	...	1	...	...	..	1	1	...	...	...	...	...	...	...	...	..	...	2
Whooping Cough	...	...	...	..	...	...	...	..	...	..	...	...	1	...	2	1	...	1	..	...	1	...	1	7
Measles	...	...	...	...	...	...	...	...	...	...	..	...	...	...	..	...	...	...	...	...	...	...	..	...
Scarlet Fever	...	...	...	...	...	...	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...
Enteritis	...	...	...	..	...	...	..	...	...	...	...	...	...	1	...	...	...	...	...	..	...	...	..	1
Diarrhœal Diseases	...	...	...	...	...	...	...	..	...	2	1	3	8	11	11	4	6	4	3	2	2	5	3	62
Erysipelas	..	...	...	...	...	...	..	...	...	1	...	1	1	..	...	...	...	...	...	...	...	...	...	2
Syphilis	...	...	...	...	...	...	...	...	...	...	..	..	..	1	...	...	1	...	...	...	...	...	...	2
Liver Diseases	...	...	1	...	...	...	1	2	...	..	...	2	..	...	...	...	...	...	...	...	...	...	...	2
Dentition	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Other Diseases of Digestive Organs	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	2	...	...	...	...	...	...	2
Convulsions and Diseases of Nervous System	1	...	...	1	1	1	1	5	1	...	...	6	...	2	1	2	...	...	1	...	...	...	...	12
Tubercular Meningitis	...	...	...	...	..	...	...	...	...	...	...		...	...	...	...	1	...	...	...	..	...	...	1
Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	...
Other Tubercular Diseases	...	...	...	..	..	...	...	...	...	..	..	...	...	..	...	...	...	...	1	...	...	...	...	1
Atrophy	...	...	.	...	...	...	...	...	..	...	..	...	1	1	...	...	..	...	...	1	...	...	.	3
Diseases of Respiratory Organs	...	...	...	...	...	...	...	...	..	...	4	4	5	3	4	6	3	2	4	...	...	1	3	35
Injury at Birth	...	...	...	...	..	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Navel Hæmorrhage	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation	...	...	...	...	..	...	..	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Other Violence	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
All other Causes	...	...	...	1	...	1	...	2	1	4	1	8	...	...	1	...	..	...	...	2	...	...	1	12
All causes	12	2	6	4	2	3	5	34	6	8	6	54	22	20	19	13	15	8	9	5	3	6	8	182

Six of the cases were uncertified, the causes of death being given as three from convulsions, one from bronchitis, one exhaustion from diarrhœa, and one from diarrhœa. An inquest was held in one case, the verdict being "found dead in her bedroom."

Of the 182 children under 12 months old who died in Blackpool, 13 had neither been born here nor in Kirkham Workhouse. Of the 169 children, 160 were legitimate, and 9 illegitimate. During the year there were 838 legitimate, and 44 illegitimate children born. Hence out of every 1,000 legitimate births there were 190·9 deaths, and 204·5 out of 1,000 illegitimate births. For the five years 1891-95 the legitimate births were 3,282, and the illegitimate births 172. The deaths under 12 months old of legitimate children during the same period were 534, and of illegitimate 48. The death-rates during this period were 162·7, and 279 per 1,000 legitimate and illegitimate births respectively.

In Table IV. the deaths distributed into wards are given, and in Table V. the infant mortality for each ward has been calculated, and further for the sake of comparison, the mortality from the combined deaths and births during the five years 1890-94 has been calculated for each ward

TABLE IV.

Number of Children under 1 year old, who died in the respective Wards.

WARD.	1890.	1891.	1892.	1893.	1894.	1890-94.	1895.
Claremont...	16	23	11	18	6	74	20
Talbot	29	24	24	42	34	153	55
Bank Hey...	4	2	3	5	2	16	3
Brunswick...	18	14	17	19	18	86	23
Foxhall	24	33	16	29	25	127	56
Waterloo ...	9	7	20	10	11	57	12
Total ...	100	103	91	123	96	513	169

TABLE V.

INFANT MORTALITY.—Deaths of Children under 1 year old, per 1,000 Births.

WARD.	1891.	1892.	1893.	1894.	1890-4.	1895.
Claremont	298·7	129·4	209·3	62·5	180·0	183·5
Talbot	136·3	119·4	212·1	134·3	150·8	201·4
Bank Hey	95·2	100·6	263·1	62·5	122·1	90·9
Brunswick	153·8	158·8	177·5	148·8	165·0	200·0
Foxhall	221·4	111·9	177·9	161·3	174·2	231·4
Waterloo	134·6	263·1	153·8	159·4	171·6	115·4
Rate for Borough	181·9	141·9	192·8	132	162·9	191·6

MORTALITY FROM ZYMOTIC DISEASES.

The seven principal zymotic diseases, viz. :—Small-pox, scarlet fever, diphtheria, 'fever,' measles, whooping cough, and diarrhœa caused 109 deaths, as compared with 42 in 1894 and 75 in 1893. Of these 16 were visitors. The zymotic rate per 1,000 inhabitants was 3·31, and 2·82 deducting the deaths of visitors.

In the 33 English towns the rate for 1895 was 2·84.

There were no deaths from small-pox, 11 from scarlet fever, 4 from diphtheria, 12 from typhoid fever, 3 from measles, 10 from whooping cough, and 69 from diarrhœa.

The zymotic rate from the five chief zymotics, deducting those from diarrhœa and whooping cough, was 0·9107, as compared with 0·85 for 1894 and 1·27 for the 33 English towns. The diarrhœal rate was 2·09 as compared with 1·20 for the 33 great towns.

MORTALITY FROM OTHER DISEASES.

Phthisis caused 41 deaths, including nine visitors, giving a death-rate of 1·24, and deducting visitors 0·97. For 1894 the death-rate amongst residents was 0·85, and for 1893 was 0·73. Diseases of the respiratory organs caused 131 deaths, of whom 22 were visitors. The deaths were 67 in 1894, and 118 in 1893. The death-rate per 1,000 residents was 3·31, as compared with 1·68 in 1894, and 3·63 in 1893. The deaths from lung diseases other than phthisis constituted 19·79 per cent of the total mortality, as compared with 13·9 per cent. last year.

Influenza.—There were 8 deaths ascribed to this cause during the year, three in the 1st quarter, four in April, and one in a visitor in September. In March and April the death-rate was higher than the average, owing to the prevalence of chest affections.

Alcohol was certified as the primary cause of death in 13 cases, 7 males and 6 females—three of these were visitors. It was also given as a secondary cause in the case of one male and two females. Death was referred to disease of the liver in 12 cases, and from the attendant circumstances it is likely that alcohol was the primary cause of death. Of these 12 deaths, seven were amongst males and 5 females. Therefore, 0·394 per 1,000 persons were certified as dying from alcoholism in Blackpool, as compared with 0·234 in 1894, and 0·176 in 1893. The rate for England and Wales during the five years, 1886-90 was 0·055, or about one seventh.

Cancer was the cause of 19 deaths (3 of whom were visitors) as against 26 in 1894, and 17 in 1893. There were 5 males and 14 females. There were 6 deaths from disease of the genital tract, 9 from the digestive tract, 2 from the breast, and 2 from the liver. The cancer death-rate was 0·577, as against 0·86 in 1894, and 0·59 in 1893.

Meningitis was certified to be the cause of death in 16 cases, of which 10 were stated to be tubercular. In seven other cases meningitis was stated to be secondary to other causes of death.

The deaths from injuries were 14, of whom 4 were visitors, as against 11 in 1894, 7 in 1893, and 8 for 1892.

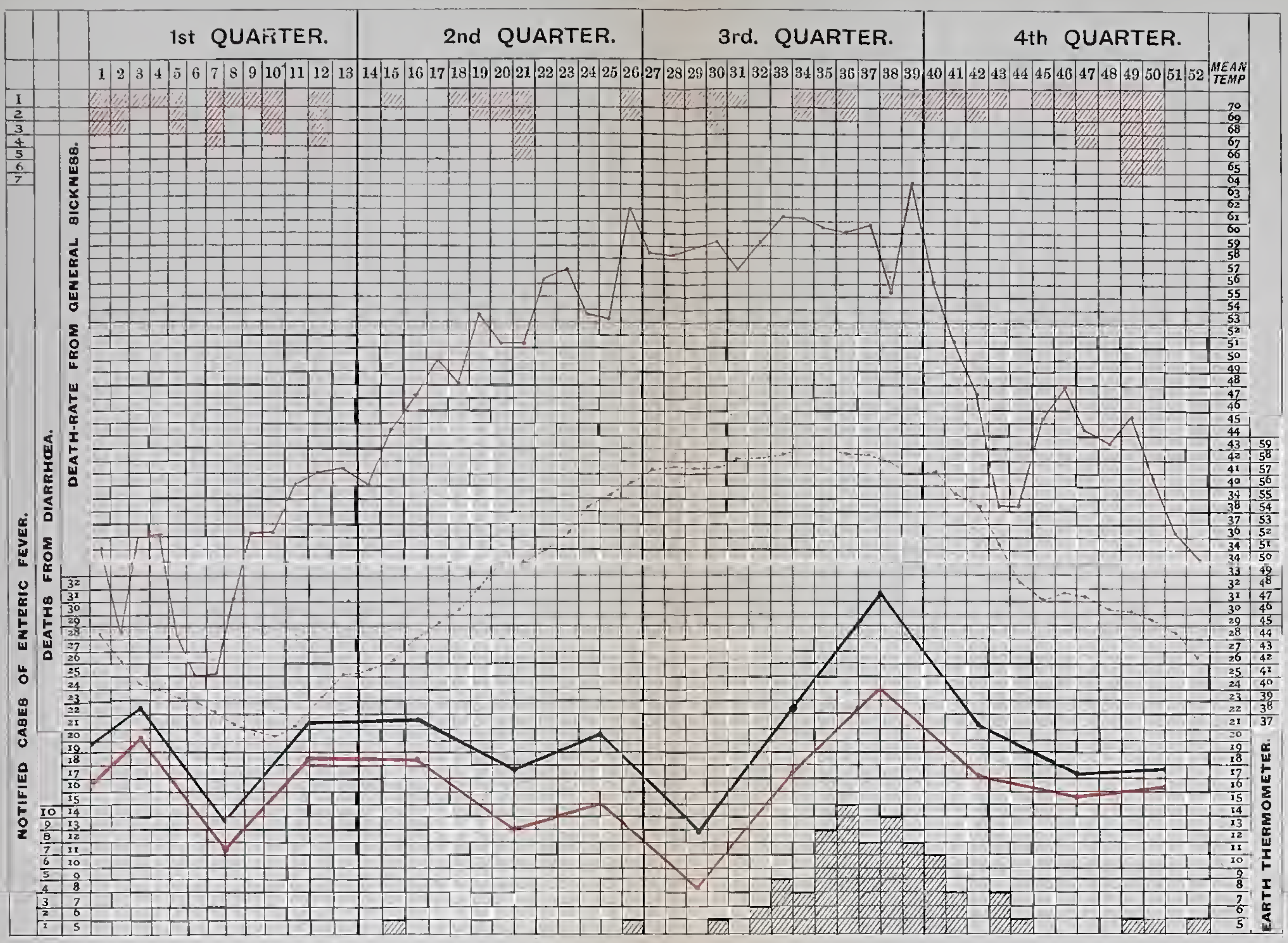
The deaths from tubercular affections other than those due to phthisis and tubercular meningitis were 11.

The deaths after confinement were 9, besides one caused by premature labour, and two by premature confinement after pneumonia. The causes of the 9 deaths were certified as (i.) confinement, embolism; (ii) parturition 9 days, phlebitis; (iii.) parturition 11 days, inflammation of colon (iv.) pneumonia 7 days, parturition 6 mos. child; (v.) puerperal convulsions, exhaustion; (vi.) profound anæmia 3 mos., parturition ½ hr.; (vii.) puerperal eclampsia 29 days, parturition 28 days, puerperal mania 27 days; (viii.) childbirth 7 days, puerperal septicæmia 4 days; (ix.) Bright's disease 1 year, parturition 14 days, hemiplegia 4 days. The rate of deaths per 1,000 births were 10·2, as compared with 9·6 in 1894, and 7·8 in 1893. The corresponding rate for England and Wales in 1893 was 6·51.

The *inquests* held during the year were 22, with the following verdicts:—

Found drowned		4
Death by drowning		2
Injuries—		
By being crushed	2	
By pair of scissors	1	
By falling body	1	
By falling	2	
By being run over	1	
	—	7
Scalds and burns		2
Suicide		1
Death by opium poisoning		1
Natural causes		2
Found dead		1
Wilful murder		1
Suffocation by vomiting		1
		22

CHART I.



DEATH RATE (Monthly) FROM ALL DISEASES

Do. do. OF RESIDENTS ONLY

TOTAL DEATHS (Weekly) FROM DIARRHŒA ▨

NOTIFIED CASES (Weekly) OF ENTERIC FEVER ▨

MEAN TEMPERATURE (Weekly) at 9-0 a.m.

MEAN TEMPERATURE OF SOIL (Weekly) at Depth of Four Feet

CHART II.

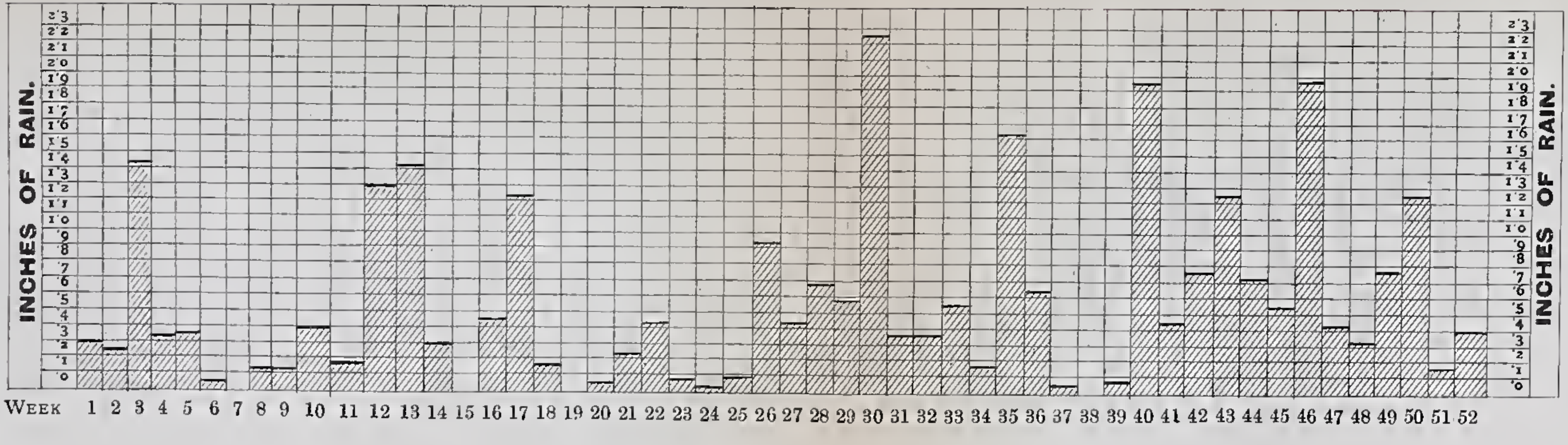


CHART III.

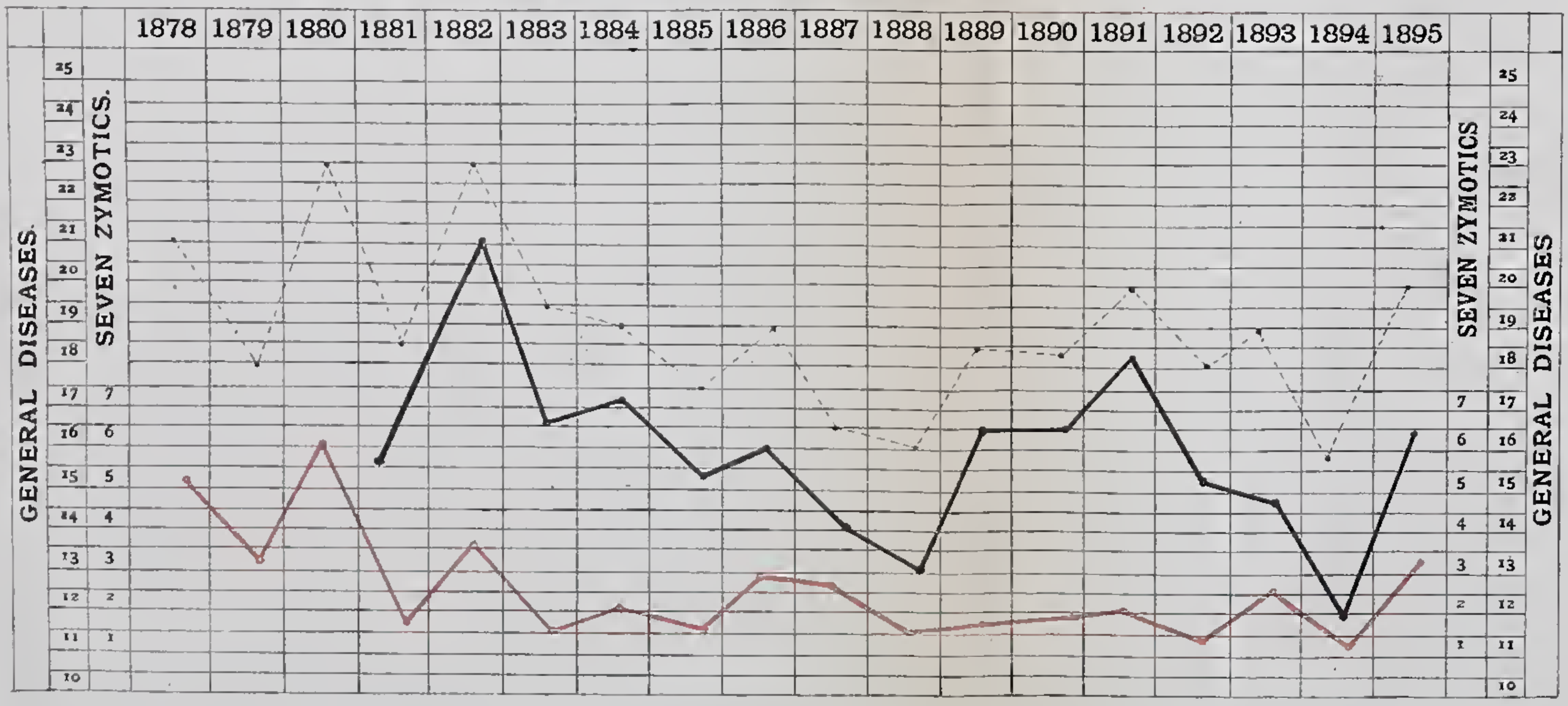
DEATH RATES.

From (1) GENERAL DISEASES

„ (2) „ „

DEATHS OF VISITORS DEDUCTED

„ (3) SEVEN ZYMOTIC DISEASES



There were 23 deaths, the causes of which were uncertified either by the Coroner or a Medical Man. Therefore 3·48 per cent. of the total deaths were uncertified.

Chart I. gives graphically the monthly death-rates, the black line giving the gross death-rates, the lower red line the corrected death-rates, the upper red line the mean weekly temperature. The lower shaded spaces denote the weekly deaths from diarrhœa, and the upper spaces shaded red the cases of enteric fever notified each week. It is noteworthy how the deaths from diarrhœa occur whilst the earth thermometer reads above 56° F. For the third time I am able to give the temperature of the soil at a depth of four feet. The mean weekly temperature of this earth thermometer is denoted by the dotted red line.

Chart II. gives the rainfall for each week of the year.

Chart III. gives the several death-rates for the last eighteen years.

Tables A, B, C, D, E, F, G, K, and L, in the Appendix, give further details of the vital and mortal statistics as compared with previous years.

The accompanying table gives a revision of the deaths from 15 causes during the last twelve years.

TABLE VI.

	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
	17,212	18,031	19,550	20,380	20,540	21,661	24,312	23,846 Census.	26,740	28,389	30,337	32,943
Small-pox	...	...	...	...	...	...	...	...	...	1	2	...
Measles	2	2	10	...	5	2	8	10	...	4	6	3
Scarlet Fever	4	2	5	12	4	1	5	4	4	11	4	11
Diphtheria	2	2	5	5	13	12	6	1	1	4	6	4
Whooping Cough ...	1	11	3	14	...	8	2	7	5	9	3	10
Croup, not spasmodic	4	2	8	4	4	6	8	4	1	4	3	...
Typhus Fever.........	...	...	...	...	...	...	...	...	...	..	...	...
Enteric Fever.........	5	3	6	4	7	8	3	4	4	5	8	12
Diarrhœa................	22	11	25	18	5	11	23	24	10	41	13	69
Rheumatic Fever ...	3	5	5	2	1	..	2	4	1	2	3	2
Erysipelas	1	...	2	1	2	2	...	1	...	4	3	2
Phthisis	26	17	27	25	23	30	27	32	33	28	33	41
Bronchitis, Pneumonia and Pleurisy	41	55	65	61	62	64	95	137	102	118	67	131
Heart Disease.........	26	20	23	23	30	39	37	41	40	43	45	47
Injuries	12	5	11	6	7	15	8	15	8	7	11	14
Other diseases.........	184	172	175	151	159	204	227	217	279	251	274	315

II.—ACTION TAKEN TO PREVENT THE SPREAD OF DISEASE.

A.—NOTIFICATION OF INFECTIOUS DISEASE.

Notification under the Blackpool Improvement Act, 1879, and the isolation of patients suffering from infectious diseases under Section 87 of the Improvement Act of 1893, has been continued with beneficial results.

As in former reports I have still to complain of the failure to notify cases of 'puerperal fever.' Only one case was notified and that a fatal one.

The following cases of infectious disease were notified during the year, and are arranged in tabular form to shew the number of cases each month :—

TABLE VII.

DISEASE.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	TOTALS.
Smallpox	...	...	...	...	...	1	5	2	...	..	...	...	8
Measles	5	8	15	7	8	5	12	20	18	4	2	4	108
Scarlet Fever ...	6	3	2	2	8	21	21	14	11	18	12	36	154
Diphtheria	1	2	...	...	2	4	1	2	1	...	3	1	17
Enteric Fever...	9	8	7	1	10	2	5	4	5	6	9	13	79
Puerperal Fever	...	..	...	...	...	...	...	...	...	...	1	...	1
Rötheln	...	...	...	1	...	...	...	...	...	...	1	...	2
Membranous Croup	...	..	...	...	...	...	...	...	...	...	...	...	..
TOTALS......	21	21	24	11	28	33	44	42	35	28	28	54	369

The number of houses infected with the different diseases is given in the following table :—

TABLE VIII.

Number of Houses Infected.

DISEASE.	January.	February.	March.	April.	May.	June	July.	August.	September	October.	November	December	TOTALS.
Smallpox	...	...	...	...	...	1	2	1	...	...	...	...	4
Measles	2	6	15	6	7	5	12	18	14	4	2	4	95
Scarlet Fever...	5	3	2	2	7	20	18	13	9	14	10	31	134
Diphtheria	1	2	...	...	2	2	1	2	1	...	1	1	13
Enteric Fever...	8	6	7	1	7	2	5	4	5	6	8	11	70
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	1	...	1
Rötheln	...	...	...	1	...	...	...	...	...	...	1	...	2
Membranous Croup.........	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	16	17	24	10	23	30	38	38	29	24	23	47	319

The accompanying Table gives the number of infectious cases notified as compared with the previous year, the deaths from these diseases, the percentage case mortality, and the death-rate from each disease per 1,000 inhabitants in comparison with the similar rates for the 33 great towns during 1895.

TABLE IX.

DISEASE.	Cases Notified.		Cases notified per 1,000 inhabitants.	Deaths in 1895	D.R. per 100 cases.	D.R. per 1,000 inhabitants.	D.R. per 1,000 inhab. for 33 great towns.
	1895	1894					
Smallpox	8	20	0·243	0	0	0	0·01
Measles	108	320	3·28	3*	1·85	0·091	0·53
Scarlet Fever ...	154	76	4·67	11†	6·49	0·334	0·18
Diphtheria.........	17	11	0·516	4	23·53	0·121	0·35
Enteric Fever ...	79	60	2·398	12	15·19	0·364	0·20
Puerperal Fever	1	1	0·030	1	100	0·030	0
Whooping Cough	...	...	...	10	...	0·304	0·37
Diarrhœa	...	...	...	69	...	2·095	1·20

* One case died a few days after coming from Bolton where it had had measles; included in death-rate per 1,000 inhabitants, but not in death-rate per 100 cases.

† Scarlet Fever certified as primary cause of death in one case, but actual cause of death was Heart Disease after Scarlet Fever fifteen months before; included in death-rate per 1,000, but not in deaths per 100 cases.

The cost of notification in fees to medical men has been as follows:—

	£	s.	d.
Measles	11	10	0
Scarlet Fever	16	0	0
Diphtheria	1	12	6
Enteric Fever........................	8	10	0
Variola..	0	10	0
Puerperal Fever........................	0	2	6
Rötheln	0	5	0
	£38	10	0

SMALLPOX.

This disease gave trouble last year, but was unable to break through our first line of defence, and although a serious outbreak occurred, we were able to stamp it out quickly.

A mild discrete case occurred in a vaccinated female in June, without the source of infection being discovered. This case had 2 oval scars about 1in. long and $\frac{1}{2}$in. wide, not well foveated, on the left arm. Some time afterwards we were notified about an unrecognised case of the disease having visited the town from Oldham. All precautions were taken, and no cases were discovered to have resulted therefrom, although this disease gave rise subsequently to a severe outbreak of disease in Oldham.

Towards the end of July a small and instructive outbreak occurred. It then appeared that a woman who had arrived at Glasgow on June 29th, from Philadelphia, in the United States, where the disease was rife, visited the town on July 6th. She was taken ill in the train, and vomited during her railway journey. The next day she was worse, and stayed in bed, procuring some medicine from a chemist. On the following day a rash began to appear on the face, which gradually got worse until the 10th, on which she consulted the chemist, and went home on that day, as her appearance was such that she did not care to be seen. The people in the house seem to have discussed the question amongst themselves as to whether it was small-pox or not, and the chemist did not say what the disease was, and did not advise either calling in a medical man or the Sanitary Officials. They were content to trust to fate, and let things slide. This illustrates the danger to the public health arising from chemists prescribing—a danger to which I am not for the first time impelled to call public attention. Although a chemist may be skilled in the mixing of drugs, he has not any ability to diagnose the nature of a disease, and one is surprised at the frequency with which he is consulted on such matters.

I may say that I visited this woman on July 30th, at her home in Yorkshire, and still found her suffering from the disease, and at large, without any isolation, her father keeping a small haberdashery shop.

Had the sanitary officials been informed of this case, even as late as July 10th, I am sure that much suffering and sorrow would have been saved.

However, on July 25th we were informed of two cases of the disease in persons living in the house where she had stayed (cases 2 and 3). On July 27th a rash appeared in a third person (case 6) of this household. Both 3 and 6 were severe semi-confluent cases with marked delirium.

Six other inmates of the house escaped. One son who had left for Manchester broke out with the disease, and apparently an effort was made to keep the matter quiet by calling it "chicken-pox," but this I frustrated. On July 27th I heard of four cases having been discovered at Burnley amongst people who had slept at this house, and had indeed occupied the same bedroom, after her departure, as the woman who had caused all the mischief; and on July 28th a further case at Barnsley was reported in a person who had been in Blackpool, and staying at a house in the next row.

On July 24th case No. 4 was reported in another part of the town, and it was considered probable that he had contracted the disease from the woman by accidentally coming in contact with her in his movements about the town. There were 14 other inmates of this house.

On July 26th case No. 5 was removed to the hospital from a street in the neighbourhood of No. 4. This was a severe confluent case. He was a railway carriage cleaner, and it was probable that he cleaned out the carriage in which the woman either entered or left the town, most likely the latter. There were 8 inmates of this house.

Case No. 7 was a man who had occasion to go to the back-yard of the house where the woman stayed, in order to store his master's goods. Case No. 7 was seen by a doctor on July 30th and 31st, who thought it was "chicken-pox." The man spent all night from the 30th to the 31st mushrooming, and the keeper of the common lodging-house fortunately refused to let him stay at his house. He went by train to the workhouse at Kirkham, where the nature of the disease was recognised.

A man who slept with No. 7 at a common lodging-house until July 29th, and in the bed occupied by him on July 30th, started to be ill on August 12th, and showed a rash on August 13th. He had a very mild attack indeed, and had been re-vaccinated on August 7th, none of the insertions taking effect.

In each case the premises were thoroughly disinfected, the inmates re-vaccinated, kept in quarantine for a few days, and under close surveillance for about three weeks. No other cases occurred.

I append some particulars of these cases.

No. of case.	Age.	Sex.	Date of Attack.	Vaccination History.	Variety of Attack.	Result.	Remarks.
1	19	Female	June 13th	2 oval scars, 1-in. by ½-in., non foveated	Discrete	Cured	3 other inmates.
2	22	do.	July 21st			Do.	6 other inmates besides 2, 3, and 6.
3	50	Male	July 20th	Small scar, size of 3d., foveated	Semi-Confluent, severe	Do.	
4	23	do.	do.	Small scar, size of 3d., foveated	Discrete, mild	Do.	14 other inmates of whom 1 had had smallpox and others had been well vaccinated.
5	24	do.	do.	Vaccinated in infancy, did not take, no scars	Confluent, severe	Do.	8 inmates.
6	45	do.	July 26th	2 indistinct scars, size of a shilling	Confluent and Hæmorrhagic	Do.	Same house as 2 and 3.
7	40	do.	do.	2 small non-foveated scars, size of 3d. piece	Discrete	Do.	
8	28	do.	Aug. 12th	One size of 6d., well foveated	Discrete, mild	Do.	Slept with No. 7.

MEASLES.

There was a diminished prevalence of this disease during 1895, March, July, August, and September being the months in which most of the cases occurred.

There were only 3 deaths, one of which was in a child who died a few days after arriving here, having been brought from Bolton three weeks after it had had measles there. This case is not included in the notification.

SCARLET FEVER.

This disease was not only more prevalent, but also more virulent than in the preceding year. Thus out of 154 cases there were 10 deaths, or a case mortality of 6·5 per cent.

The cases began to get widespread in May, continued with undiminished prevalence during June and July, dropped slightly until October, when it again dropped to break out again in December with renewed vigour.

At the end of May and during June and July there were 8 cases of the disease, with one death in the village of Great Layton, and here there was a suspicion that the disease had been carried into the village by a servant girl suffering from what was considered to be German Measles. This person had left for London when I obtained my information, and I could not prosecute my inquiries further.

In November and December a small epidemic occurred at South Shore, some of the cases contracting the disease at a children's party.

In two instances women contracted the disease whilst in bed after confinement.

Examples of the spread of infection through cases being isolated at home were met with.

DIPHTHERIA.

There were slightly more cases of this disease, but fewer deaths than in 1894. In one instance, three cases of whom two died, occurred in one family at Hawes Side, the children being removed in a filthy condition from a dirty house. One child removed from another house in the same neighbourhood in a very dangerous condition, survived after the use of antidiphlleitic serum.

ENTERIC FEVER.

The epidemic which had commenced in December, 1894, continued through January and February, falling gradually to one case in April. In May a fresh outbreak occurred, with continued but slight prevalence of the disease until November and December.

The cases in May were traced to milk. A number of cases had a common milk supply, and on inspecting the farm, which lay outside the Borough, it was found that the wife of one of the sons was dying from enteric fever, and that her husband was slowly recovering from an attack of the disease, which up to that time had not been recognised. The water supply to the cottage inhabited by them was got from a surface well in the middle of the road, and there was every probability that this had become infected. Owing to the representations made to the Rural Sanitary Authority through this case, it was ultimately decided to adopt the Notification of Diseases Act in the District of the Fylde Rural District Council.

A great deal of harm is done by the statement that the disease is only infectious through the stools. No matter how the infection is carried, a case of the disease is a great source of danger to anyone nursing the same, or even associating with the patient, as this year's experience proves. One woman who took the disease obstinately refused to be removed to the hospital in spite of the medical attendant's advice and her husband's entreaties, with the result that her child, aged 9, who waited upon her, took the disease and died, as also 2 other children aged 7 and 5 years respectively, who, however, recovered. These cases occurred in a new house, and no serious sanitary defects could be discovered.

In another household a woman contracted the disease, and subsequently both her landlady and husband, who were concerned in nursing her previous to her removal to the hospital, contracted the disease. This was likewise a house which had only been occupied a few months. In a third case a mother contracted the disease after nursing her child. Four cases were taken from another household and two occurred in a fifth. Likewise two of the nurses at the Sanatorium contracted the disease.

The age-and-sex-distribution of these cases was :—

	Males.	Females.	Totals.
Under five years	—	3	3
From five to ten years	9	8	17
„ fifteen to ten years	7	4	11
„ twenty-five to fifty years	11	11	22
Over twenty-five years	11	15	26
	38	41	79

The excreta of typhoid cases is still collected in air-tight receptacles charged with disinfectants and subsequently burnt.

Tables B and H in the appendix give further details of the cases of infectious disease notified to me.

PHTHISIS OR CONSUMPTION.

There were 41 deaths ascribed to this cause. There has been noticed an increased desire to voluntarily notify cases of this disease in order to have the rooms disinfected after the removal of the patient. In all fatal cases a circular and an offer to disinfect free of charge is sent to the occupier. In eleven instances the infected rooms were disinfected, and although in the remainder disinfection by us was refused, yet it was the rule to receive an assurance that they had had the rooms, &c., so cleaned that they did not consider it necessary to do anything further.

DIARRHŒA.

There were the large number of 69 deaths which I classified as due to this cause. To some extent this heading is indefinite, and may include several distinct diseases due to different causes, but here most of the deaths occurred in August, September, and October, and must clearly be due to an epidemic form of the disease known as autumnal diarrhœa. More intimate knowledge of the factors causing this disease is desirable. But the relation between the temperature of the soil at a depth of four feet and deaths from diarrhœa is well shown in Chart I. It is there seen that when the temperature exceeds 56°F the deaths immediately begin to occur.

From the 26th to the 40th week of the year the earth thermometer registered above 56° F, and during that time 61 out of the 69 deaths occurred. Of the deaths 60 took place in children under 12 years old, 8 in children over 1 and under 2 years, and 1 in a female 55 years old.

Neglect and filthy houses is one of the contributing causes of this disease, and of this we met with some glaring examples during the year. If the houses and yard are not kept clean food does not keep well, and the infected food gives rise to the disease. An improvement in private hygiene is required. No matter what is done to improve the public health by public measures, it will be to a great extent nullified by overcrowded dwellings with children and premises kept in a filthy condition.

B.—ISOLATION.

An increased number of patients was treated in the Infectious Diseases Hospital this year, and during the last quarter of the year it was difficult to accommodate all the patients who were desirous of being admitted. However, the help of isolation in preventing the spread of disease enabled us to tide over the difficulty. This desire on the part of the public to avail themselves of the comfortable provision provided for them whilst suffering from infectious disease is very satisfactory, and speaks volumes for the management. Great praise is due to the Matron, Miss Cain, for the manner in which she performs her duties, and to the nursing staff for the admirable manner in which they carry out their orders. The system of appointing probationers and training our own nurses has worked well. Of course, there are occasional grumbles; but in an institution of that character there is bound to be some discipline, and unless some responsible person were placed at the head of an institution, which appears to an outsider to work smoothly and without any difficulty, a lamentable state of anarchy would soon supervene. Objection has been raised to the position of Medical Superintendent being held by me, but in reply to that I have only to say that it is necessary to have a medical man at the head of such an institution, and for him to treat those cases which either have not or do not care to employ another medical man.

In such rate-supported hospitals it is customary not only to provide maintenance and lodgings, but also medical attendance free of charge to all ratepayers, on the ground that isolation is rather for the public good than necessarily for the advantage of the patient. The following quotation from the Supplement of the 10th Annual Report of the Local Government Board 1880-81, gives the view of the Local Government Board on the subject:—

> " Where there is no resident Medical Officer it is found necessary that some other medical practitioner should be appointed to take the general administrative charge of the hospital, and that he should be held responsible for the general working and the sanitary condition of the establishment. Indeed, the failure to appoint some such officer has, as at Goole, prevented the remedy of very defective sanitary circumstances, besides hindering isolation. In most districts this office is fulfilled by the Medical Officer of Health, and unless he resides at an inconvenient distance from the hospital, as sometimes happens in cases where one Medical Officer of Health acts for a combination of sanitary districts, this officer is, as a rule, the most appropriate person for the duty."

Table X. gives particulars of the patients admitted to the Hospitals :—

TABLE X.

Patients admitted to the Sanatorium during Year 1895.

No. of cases Notified	DISEASES.	Total admtd.	MALES.		FEMALES.		Dis-charged	Died	Remaining in Hospital, Dec. 31st,	
			Under 12 years	Over 12 years	Under 12 years	Over 12 years			1894	1895
154	Scarlet Fever	113	40	10	49	14	87	5	3	24
79	Enteric Fever	48	8	14	8	18	46	5	11	8
17	Diphtheria ...	7	3	2	1	1	5	2	...	...
2	German Measles ...	1	...	...	1	...	1	...	...	...
...	Other Diseases	4	...	1	...	3	1	3	...	...
252	Totals......	173	51	27	59	36	140	15	14	32

In the old Sanatorium there were 8 cases of small-pox, 6 adult males and 2 adult females, all of whom recovered.

For the financial year, ending March 25th, 1896, the cost of the hospitals were :—

INFECTIOUS DISEASES HOSPITAL.	£	£
Wages of Matron and Porter	100	
Nurses, including their expenses	162	
Provisions for Inmates, &c.	452	
Domestic Servant and Laundress	50	
Gas, Coal, Water, Rates, and Taxes	142	
Alterations and Repairs	225	
Gardening	53	
Medicine and Medical Apparatus	28	
Advertising, Printing, and Stationery	4	
Bedsteads, Sheets, Blankets, Blinds, &c.	84	
Stimulants, &c.	13	
Cleaning Materials, Travelling, and Sundry Expenses...	33	
		1,346
Less Receipts from Inmates, say	50	50
		1,296
Interest and Sinking Fund		275
		£1,571

OLD SANATORIUM.		
Wages of Caretakers, &c.	£5	
Hired Nurses	6	
Repairs	2	
Gas, Coal, Rates, and Taxes	22	
Bedsteads	9	
		44
		£1,615

During this period the average stay in the Hospital of the 189 patients, was 41·25 days, or 7,797 days. The old Sanatorium had 8 cases, and the stay was 291 days. This institute was nursed and provisioned from the Infectious Diseases Hospital.

Including in the cost of the two Hospitals the interest and sinking fund, the cost per week per patient was £1 7s. 11·46d. Deducting the amount received from patients, the actual cost to the ratepayers of each patient averaged £1 7s. 1d. per week, as compared with £1 17s. 0·7d. in the financial year 1894-5. In this cost is included the cost of disinfecting articles sent from the Borough to be disinfected.

Since the Hospital was opened in July, 1891, the following cases have been treated there and at home, with the results mentioned in table XI.:—

TABLE XI.

Disease.	Cases treated in hospital	Deaths.	Per cent. of mortality.	Cases treated at home.	Deaths.	Per cent of mortality.
From July, 1891, to Dec. 31st, 1895.						
Measles	119	*Nil*	*Nil*	682	22	3·22
Scarlet Fever	321	17	5·29	154	17	11·04
Enteric Fever	130	14	10·77	104	18	17·3
Diphtheria	25	8	32	27	8	29·6
Other Diseases	7	3	42·8	...	...	...
Totals	602	42	6·97	967	65	6·72

III.—GENERAL SANITARY CONDITION OF THE DISTRICT.

A—INSPECTOR OF NUISANCES REPORT.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,—I have the honour and pleasure to present to you my fifteenth Annual Report of the work carried out under the superintendence of the Medical Officer of Health by my branch of the Sanitary Department during the year 1895.

I give hereunder the figures for the past year's work together with similar figures relating to 1894, for the purpose of comparison :—

		1894.	1895.
Complaints received		131	63
Houses and other premises inspected		2874	2298
Houses where sanitary defects were found		1589	1594
Houses and other premises re-inspected		2470	1499
Notices served for the Abatement of Nuisances.	Council	434	132
	Preliminary	1703	646
	Verbal	164	277
	Letters	336	96
		2637	1151
House Drains Tested—			
New houses	satisfactory	423	452
	unsatisfactory	198	260
Other houses	satisfactory	87	87
	unsatisfactory	991	677
House drains re-tested		627	610
Total number of tests made		2326	2086
Number of sanitary defects repaired		1911	2841
Houses where sanitary defects were repaired		671	760
Drains—			
Drains laid, relaid, and disconnected		260	440
Drains repaired and cleaned out		361	304
Unsuitable gully traps replaced by properly trapped gullies, and new gullies fixed		279	289

W.C's.—		
New soil pipes fixed	—	3
New w.c's. fixed in lieu of privies and defective w.c's. ...	82	155
Waterclosets repaired	145	366
Fittings and water provided for w.c's.	20	61
W.C. soil pipes repaired and ventilated	119	135
Pan w.c's. abolished	—	92
REFUSE RECEPTACLES—		
Ashpits abolished	13	20
Ashtubs provided	24	86
Ashpits re-built on approved system	37	51
Manure receptacles provided	2	3
Cesspools abolished	1	6
New cesspools built	2	1
Pail closets substituted for privies	3	2
Privies abolished	—	3
Slopstone pipes repaired	—	4
WASTE PIPES—		
Bath, lavatory, slopstone, and rainwater waste pipes disconnected over gullies	199	92
New slopstone waste pipes fixed...	85	53
New rainwater pipes fixed	26	17
Rainwater pipes and roof gutters repaired	33	44
Slop-hopper waste pipes treated as soil pipes	9	10
Do. abolished	—	3
MISCELLANEOUS—		
Houses cleaned and limewashed...	6	2
Walls of houses cemented	3	1
Floors re-laid with flags or in cement	19	64
Back yards repaired	83	215
Cellar floors repaired	—	48
Air shafts repaired	—	12
Rainwater pipes provided with drains	—	2
Smoke observations taken	—	21
Ashtubs removed from improper situations	—	94
Back passages cleansed...	25	24
Accumulations removed	41	26
Old wells filled in and F.W. provided	2	—
Premises disused as sleeping apartments...	13	—
Animals removed from improper situations	7	5

Roofs repaired and new roof gutters fixed	2	5
Chimneys raised to abate smoke nuisance	3	1
Rooms ventilated	7	4
Premises other than dwellings closed	—	—
Yard walls re-built	—	4
Cellars drained	—	3

UNSOUND FOOD.

DESTROYED UNDER MAGISTRATES' ORDER—

Bacon	103lbs.	Geese	2
Beef	265lbs.	Oysters	63
Apples	7lbs.	Ducks	2
Shrimps	24qrts.	Fowls	2
Prawns	48qrts.		

INSPECTIONS.

Butcher's meat inspections		124
Fruit inspections		126
Fish inspections		200
Ice cream inspections		169
Inspections of	Factories and workshops	27
Do.	Dairies and milkshops	469
Do.	Bakehouses	378
Do.	Slaughter-houses	482
Do.	Common lodging-houses	314
Do.	Shops, stalls, and hawkers	15353

INFECTIOUS DISEASES.

Inquiries made into cases of infectious disease	206
Houses disinfected after cases of infectious disease	319
Houses disinfected after cases of consumption	11
Isolation notices served upon householders	161
Isolation notices served upon school managers	77

ARTICLES REMOVED FROM 222 HOUSES TO SANATORIUM—

Sheets, quilts, blankets, and such	956	Carpets	260
Articles of clothing	1756	Rugs and mats	173
Pillows and bolsters	711	Curtains	176
Books	26	Cushions	57
Beds	298	Table-cloths	30
Mattrasses	307	Miscellaneous articles	616

Total number of articles disinfected 5366

and also 1330 articles from the Sanatorium... Total 6696.

COMMON LODGING-HOUSES.

Total number on register	2
Limewashed and cleansed	2

Inspected 314 times.

CONTAGIOUS DISEASES AMONGST ANIMALS.

In April a dog was found to be rabid, and the opinion formed at the post-mortem was subsequently confirmed by the report from the Superintendent of the Brown Institute. This dog had bitten a cat, but fortunately killed it. There were two other cases of rabies in dogs. The muzzling of dogs in the Borough was then enforced until towards the end of the year. There was no instance of a human being having been bitten by a rabid dog. The order had the wholesome effect of clearing the Borough from a number of dogs which were without owners, or whose owners took so little interest in them as not to claim them after seizure by the police.

There was no outbreak of swine fever during the year.

SALE OF FOOD AND DRUGS ACTS.

Thirty-four samples were taken for analysis according to the provisions of the above Acts, viz.:—

Milk	13	Butter	3	Lard	3
Bread and butter	3	Whiskey	1	Tea	1
Pepper	2	Gin	1	Coffee	3
Cheese	1	Vinegar............	3		—
					34

These samples were submitted to the Borough Analysts for examination. One sample (butter) was reported upon as inferior, twenty-nine as genuine, and four adulterated.

The adulterated samples were:—

(i). Cheese, known as the "Valleyfield" cheese, which had upwards of ten per cent. of foreign fat. Summoned and fined 10/- and costs.

(ii.) Milk deprived of upwards of one-half of its cream. Summons dismissed.

(iii.) Bread and butter, found to be bread and margarine, the latter containing upwards of fifty-five per cent. of fats other than butter. Fined 10/- and costs.

(iv.) Whiskey containing four per cent. more water than the legal maximum. The vendor was cautioned.

GENERAL REMARKS.

The 760 houses made sanitary during the year were distributed over the six wards of the Borough in the following proportion :—

	1894.	1895.
Claremont Ward	74	107
Talbot do.	116	158
Bank Hey do.	25	47
Brunswick do.	98	105
Foxhall do.	287	210
Waterloo do.	71	133
	671	760

Taking into consideration the size of the wards, the work will thus be seen to have been fairly distributed over the town. The tabulated summary of work shews the character of the repairs which have been carried on.

Over 2,000 smoke tests were made, and in most cases this means also an inspection of the underground drains, the tracing thereof, and a complete examination of the sanitary arrangements of the premises.

A special feature was made of the inspection of the food supply of the Borough, especially during the summer months.

The staff of drain-testers now numbers five men, divided into two gangs, one for the south and the other for the north district. Besides the testing of new and old houses, they carry out whatever disinfection is required in infected houses.

I have again to thank the owners and agents of property for their readiness to comply with our requirements, and to express a readiness to confer with them and assist in the re-arrangement of the sanitary arrangements of old houses—a very difficult matter in some cases.

I am, Gentlemen,

Your obedient servant,

FRANCIS MACDONALD,
Inspector of Nuisances.

Public Health Offices,
February, 1896.

B.—The Condition of Dwellings.

The foregoing account of the work done by the drain-testers will shew the close supervision which is exercised over the sanitary condition of the dwellings. The large percentage (88 per cent.) of old houses found with some sanitary defect or other shews the need for the frequent examination of the drainage arrangements of the houses. Even in new houses the percentage found unsatisfactory when first tested is as high as 36. In many cases the work of the sanitary officials is thrown away by the indifferent manner in which the defects are repaired, for though the leaky drains may be temporarily made water and air-tight, yet there is no security that this will continue for any adequate length of time. These frequent examinations of drains, leading to as many breaking-ups of the ground, are annoying to owner, tenant, and officials, and arise from the work being carried out in a patch-work manner rather than by its being done in a solid and substantial manner from the first.

The last year has seen a great step in advance, however, for it is now the rule rather than the exception to have the joints made with cement in preference to clay puddle. This I have advocated yearly, and should like to see it insisted upon in all cases. Further, I must reiterate my opinion that all drains should be adequately tested, and for that purpose the water test alone can be regarded as sufficient.

The paving of back yards has received greater attention than usual, and during the year there have been 215 repaired, boulder stones, bricks, &c., being replaced by non-absorbent materials.

I have again to call attention to the non-compliance with the bye-law respecting the cementing, asphalting, &c., of the site of new houses, and the making of the floor of the basement or ground floor of wooden boards. In many cases we find stagnant water lying under the floor of new houses—a condition of affairs which must be prejudicial to health.

Again, all drains should be properly ventilated, and I fail to see why the drains should not be so treated in the small cottage houses with only a w.c. in the yard. The extra shaft could be supplied at the cost of a few shillings, and to save the pocket of the builder of this small initial outlay betrays, to my mind, a too tender solicitude for his welfare.

C.—Water Supply.

The Borough is supplied with water from the Fylde Waterworks Company, except the farms at Warbrick. This should be remedied at once, as they have not a proper supply at the present time. There have been complaints of the turbid condition of the water as delivered to many houses in the town, but, thanks to the strong opposition to the last Fylde Water Bill, and the strong evidence which was produced before the Committee of the House of Commons, the Company are now obliged to filter every drop of water turned into the mains, and this precaution along with the proper flushing of the mains should give us a water supply not only pure but inviting to the eye and second to none in the country.

D.—Removal of Household Refuse.

This duty becomes more onerous each year and I have again to compliment Mr. Green on the manner he deals with the difficulties. He requires to be constantly on duty, and he is ever ready to listen to any complaint, and remedy it at once. Owing to the rapid growth of buildings in the south-eastern portion of the Borough, which is now unsewered, great labour, strain, and cost is put on this department. The drainage is carried into cesspools, from which it is the duty of the sanitary workmen to pump it and convey it on to suitable land. As if this were not difficult enough, from time to time w.c.'s are allowed to be constructed in such places and to discharge into the cesspools. I have felt it my duty from time to time to object to this arrangement, but without much avail. However, it is to be hoped that before the expiration of another twelve months the new sewerage scheme in this district will have been completed.

My endeavour to prevent nuisance from the small collections of house refuse by having properly constructed small ashpits does not meet with much success. The object is to keep the refuse dry ; to prevent it being blown about by the wind ; to keep animals and children away from it; and to remove it expeditiously without disturbing the inhabitants. There have been 51 such constructed during the year. A plan thereof can always be seen at the Health Office.

SUMMARY OF WORK DONE.

	1894.	1895.	Increase or Decrease.
Ashtubs emptied	324,952	364,356	† 39,404
Ashpits do.			† 547
Ordinary	2,601	1,581	— 1,020
Modified	2,990	4,557	† 1,567
	5,591	6,138	
Cesspools emptied	246	542	† 296
Pail closets (emptied weekly)	2,496	3,671	† 1,175
Privies (in rural portions of the borough)	1,372	1,885	† 513
Refuse tubs (emptied daily from markets, shops, &c.)	22,617	24,583	† 1,966

The sign † means increase, and — decrease in the above and following tables.

The number of ashtubs, privies, &c., in the borough on December 31st, 1895, was:—

	1894.	1895.	Increase or Decrease.
Ashtubs	5,816	6,266	† 450
Ashpits	448	280	— 168
Ashpits according to approved plan	128	223	† 95
Privies and cesspools	190	255	† 65
Pail closets in rural parts of the borough	50	97	† 47

The refuse carted was disposed of as follows:—

	1894.	1895.	Increase or Decrease.
Loads of refuse to destructor	14,751	17,263	† 2,512
Do. do. do. tip	284	792	† 508
Do. to oyster shell heap	106	87	— 19
Do. on land in rural parts of the borough	1,149	1,339	† 190
Total loads of refuse carted	16,290	19,481	† 3,191
Total loads of coke carted to cremators	977	561	— 416
Total loads of refuse and coke	17,267	20,042	† 2,775

The increase in loads tipped at the destructor was due to the destructor being out of use temporarily during the construction of the four new Horsfall cells. An increase in the loads tipped on land is accounted for by there being more cesspools and more loads of dirty water to dispose of.

For the financial year ending March 25th, 1896, the cost of emptying ashpits, &c., was £3,070, *i.e.*, per inhabited house of 9s. 0·18d. as compared with 7s. 11·99 in 1894. The number of loads of refuse and coke carted in the financial year was 21,261, that is 2s. 10·6d. per load, as compared with 2s. 11·6d. in 1894.

The cost of the refuse destructor during the financial year, including interest and sinking fund was £1,908, and the loads burnt were 18,487, on a cost of 2s. 0·7d. per load consumed as compared with 2s. 2·6d. in 1894.

E.—Farm Premises.

These have been inspected from time to time, and as opportunities offer an attempt is being made to make them comply with the new regulations. I reported in detail upon these in my last report.

F.—The Public Slaughter-House and Private Slaugter-House.

This building was first used on May 1st, 1895, and since then the following animals have been slaughtered therein up to December 31st :—

Beasts—Cows	77	
Heifers	313	
Bullocks	28	
		418
Calves		180
Sheep		8,690
Pigs		612
Total		9,900

The diseased animals discovered amongst these were :—

(i) A heifer affected with tuberculosis; the magistrates only condemned the viscera and not the carcase.

(ii) A cow with tuberculosis, the viscera and forequarters weighing 245lbs. being condemned.

(iii) A pig affected with tuberculosis, 98lbs. of which was only condemned by the magistrate.

(iv) A sheep, emaciated after advanced pneumonia, destroyed with consent of owner.

(v) Two lambs were found dead.

(vi) The livers of 4 heifers and 25 sheep were affected with "flukes."

(vii) The liver of 1 bullock was cirrhosed, and 1 heifer had a large abcess in the liver of uncertain causation.

At the present time 7 of the 10 private slaughter-houses are let, and the public slaughter-house is much used by the smaller butchers.

The public have now the satisfaction of knowing that the carcase of any animal which has been slaughtered there has been inspected during and after slaughter, and that as far as possible all meat that is injurious is kept out of the shops.

It will be your duty before long to close the existing and most objectionable private slaughter-houses in the Borough.

G.—SEWERS AND SEWAGE DISPOSAL.

The pumping station for the sewer to Little Layton and the Cemetery is now in use, but as yet the houses at Little Layton are not attached thereto, the necessary branch sewers not having been yet laid. It is most essential this work should proceed without delay.

By the courtesy of the Borough Surveyor I am enabled to give the following details of sewerage done during the past year in his department, apart from the large main drainage scheme which has just been completed.

NEW SEWERS LAID.	Yards.
18-inch sewers	260
15-inch ,,	1059
12-inch ,,	3833
9-inch ,,	5293
	10445

Old sewers taken up and re-laid or replaced with larger pipes:—

	Yards.
15-inch sewers	500
12-inch ,,	834
9-inch ,,	1073
	2407

The number of plans of buildings approved by the Building Plans Committee was 513, and the certificates of habitation given numbered 229, representing 618 dwelling-houses.

A great need, which is recognised, but never gets carried out, is the provision of automatic flushing tanks at the dead ends of the sewer, which might preferably be fed with sea-water.

The ventilating shaft from the sewer, with fan worked by the waste heat at the destructor, is now in use, and is acting well and much more effectively than I expected. A large amount of foul air is pumped from the sewer and cremated in the furnaces.

H.—Housing of the Poor.

Under Part II. of the Housing of the Working Classes Act, 1890, I made representations that 14 houses were unfit for habitation. The use of five as dwellings was discontinued. Eight were repaired to such an extent that their continued occupation as dwellings was still allowed, whilst one remains to be dealt with, no adequate repairs having been made, and the cottage remaining occupied.

I.—Baths and Wash-houses.

During the year I have been struck with the need of public baths for the use of the poorer inhabitants of the town. The charges made at the sea-water baths are prohibitive to the working classes. By adopting the Baths and Wash-houses Acts of 1846, 1847, 1878, and 1882, it would be possible to either erect small baths, or rent a cottage-house in a suitable locality, where a cold bath could be had for a sum not exceeding one penny, and a warm bath for a sum not exceeding twopence. There is no necessity to go in for a pretentious scheme. A small cottage could be bought or rented in a neighbourhood where cottage-houses without baths abound, and could be fitted up with a small number of baths, certain days of the week being devoted to males and other days to females.

I am sure that such provision would not only improve the comfort of our poorer inhabitants, but would also be conducive to the public health. I trust that this subject will be earnestly considered by you at an early date.

IV.—METEOROLOGY.

The observations have been carefully taken by Mr. T. Sanderson, Sanitary Inspector. During the season telegraphic messages of the state of the weather were sent each forenoon to the "Sheffield Daily Telegraph."

The equipment of the department consists of—

(i) A Standard Fortin barometer kept in the Health Office.

(ii) A Stevenson-screen containing wet and dry bulb and maximum and minimum thermometers.

(iii) An earth thermometer at a depth of four feet.

(iv) A rain gauge.

(v) A Campell-Stokes Sunshine Recorder on the North Pier, and a wind vane, and an anemometer.

The Stevenson-screen with the thermometers and rain gauge are kept at the Infectious Diseases Hospital. The tables at the end of the report give the result of the observations for the year. I append here a short summary of the weather for each month of the year. The observations are taken daily at 9 a.m.

January.—The weather was cold and changeable. The mean temperature was nearly six degrees below the average. The lowest reading shewed 20 degrees of frost on the 30th. Bright sunshine was fully 12 per cent. above the average. The mean temperature was 1 degree above Manchester, and 1·3 degrees above Stonyhurst. The rainfall was less, and the sunshine more than in both those places.

February was an exceptionally cold month. The mean temperature was over 10 degrees lower than the average, but yet it was above that of adjoining stations. Twenty-two degrees of frost were registered on the 8th. Rainfall was below, and bright sunshine above the average.

March was cold and changeable in the early part. The mean temperature was slightly below, and the rainfall above the average. The bright sunshine was about 5 per cent. below the average, but yet it was decidedly greater than that at either Stonyhurst or Manchester.

April was a variable month. The temperature was slightly above that of adjoining stations, and of the average. Rainfall and bright sunshine were above the average. The latter was markedly more than either at Stonyhurst or Manchester.

May.—Fine warm month. Temperature 2 degrees above the average. Rainfall much below the average, and less than either Manchester or Stonyhurst. Bright sunshine twenty hours more than the average.

June.—Mostly a dry, warm month. Temperature above, and rainfall below the average. Bright sunshine lasted 32 hours more than the average.

July.—Unsettled, with heavy falls of rain. Temperature slightly below the average, but decidedly above that of neighbouring stations. Rainfall and bright sunshine above the average.

August was over one degree warmer than the average, and the temperature exceeded that at neighbouring stations. Rainfall equal to the average, and bright sunshine below the average, but above that of stations near the same latitude.

September.—A very fine and dry month. Temperature 5·8 degrees above the average, and nearly two degrees warmer than at Manchester and Stonyhurst. Rainfall as much as 3 inches below, and bright sunshine 50 hours above the average.

October.—A very variable and cold month. Temperature 3 degrees below the average, and on the 29th it fell to 19 degrees, or 13 degrees of frost. Still the average temperature was 2 degrees warmer than Manchester, and 4 degrees above that of Stonyhurst. Rainfall 1 inch, and bright sunshine 20 hours above the average.

November was a very unsettled month. Temperature 2 degrees above the average, and 1 degree above that of Stonyhurst. No frost. Rainfall below, and bright sunshine above average. The latter was higher than at neighbouring stations.

December was a dull and unsettled month with gales. Temperature slightly above the average, but still it was 1·5 degrees above Manchester, and 1·7 degrees above Stonyhurst. Rainfall slightly, and bright sunshine 19 hours below the average.

A table of the several averages for each month, calculated from the observations taken during the ten years (1885 to 1894) is given below.

AVERAGE OF METEOROLOGICAL OBSERVATIONS FOR EACH MONTH DURING THE YEARS 1885–1894.

	Pressure.		Temperature.			Rainfall.		Bright Sunshine.
	Mean.	Range.	9 a.m.	Of Highest.	Of Lowest.	Average.	No. of Rainy Days.	
January	29·922	1·430	37·17	43·33	32·78	2·087	17·1	34·72
February	29·097	1·243	38·32	48·39	27·01	1·432	15·4	57·143
March	29·967	1·369	40·11	53·22	27·51	1·802	11·6	104·251
April	29·967	1·023	46·99	60·40	32·15	1·390	12·5	142·179
May	29·933	·970	51·63	65·94	36·89	2·195	14·3	164·466
June	30·059	·887	57·92	72·31	41·81	2·103	10·9	189·132
July	30·212	1·035	59·80	71·92	47·68	2·532	14·8	175·610
August	30·042	·921	58·75	70·19	46·50	3·327	15·6	143·913
September	30·022	1·019	55·71	66·94	36·85	2·986	15·1	113·973
October	29·858	1·319	48·88	59·12	34·15	3·194	16·5	91·182
November	29·791	1·429	43·68	53·35	31·95	3·136	18·5	40·657
December	29·960	1·564	38·46	49·14	25·35	2·005	16·9	28·927

Appendix, Tables, &c.

TABLE A (Local Government Board Return).

TABLE OF DEATHS during the year 1895 in the Borough of BLACKPOOL, classified according to Diseases, Ages, and Localities.

Names of Localities.	Mortality from all causes at subjoined ages.								Mortality from subjoined causes, distinguishing Deaths of Children under 5 years of age.																				
													Fevers.																
a	At all Ages. b	Under 1 year. c	1 and under 5. d	5 and under 15. e	15 and under 25. f	25 and under 65. g	65 and upwards. h	i	Smallpox. 1	Scarlatina. 2	Diphtheria. 3	Membranous Croup. 4	Typhus. 5	Enteric or Typhoid. 6	Continued. 7	Relapsing. 8	Puerperal. 9	Cholera. 10	Erysipelas. 11	Measles. 12	Whooping Cough. 13	Diarrhœa and Dysentery. 14	Rheumatic Fever. 15	Phthisis. 16	Bronchitis, Pneumonia, and Pleurisy. 17	Heart Disease. 18	Injuries. 19	All Other Diseases. 20	Total. 21
Claremont Ward	78	22	8	3	1	34	10	Under 5..	....	....	....	....	....	....	....	....	....	....	....	....	2	9	....	1	5	....	1	12	30
								5 upwards	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	1	8	8	2	26	48
Talbot Ward	192	62	30	9	7	54	30	Under 5..	....	5	....	....	....	....	....	....	....	....	2	3	....	28	....	1	21	....	2	30	92
								5 upwards	....	3	1	....	....	1	....	....	1	....	....	....	....	....	....	13	13	13	2	53	100
Bank Hey Ward	33	3	3	1	..	15	11	Under 5..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	4	6
								5 upwards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	7	1	1	17	27
Brunswick Ward	109	24	11	1	6	46	21	Under 5..	....	....	....	....	....	....	....	....	....	....	....	....	1	6	....	....	6	1	....	21	35
								5 upwards	....	....	....	....	....	5	....	....	....	....	....	....	....	....	1	5	17	9	2	35	74
Foxhall Ward	166	59	17	6	7	54	23	Under 5..	....	1	....	....	....	....	....	....	....	....	....	....	4	20	....	1	16	....	....	34	76
								5 upwards	....	1	1	....	....	3	....	....	....	....	....	....	....	1	1	7	23	8	4	41	90
Waterloo Ward	77	12	9	1	3	32	20	Under 5..	....	....	2	....	....	1	....	....	....	....	....	....	3	5	....	....	5	....	....	5	21
								5 upwards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8	6	7	....	35	56
Kirkham Workhouse (not in Borough)	6	..	..	..	..	6	..	Under 5..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
								5 upwards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	1	6
Totals	661	182	78	21	24	241	115	Under 5..	....	6	2	....	...	1	....	....	....	....	2	3	10	68	....	3	55	1	3	106	260
								5 upwards	....	5	2	....	....	11	....	....	1	....	....	....	....	1	2	38	76	46	11	208	401

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto in Kirkham Workhouse	6	....	....	....	....	6	...	Under 5..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
								5 upwards	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	1	6
Deaths occurring within the district among persons not belonging thereto	123	13	15	4	9	61	21	Under 5..	....	2	....	....	....	....	....	....	....	....	....	2	....	9	....	....	2	....	....	13	28
								5 upwards	....	....	....	....	....	3	....	....	....	....	....	....	....	....	....	9	20	13	4	46	95

TABLE B (Local Government Board Return.)

TABLE OF POPULATION, BIRTHS, and of NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health during the year 1895, in the BOROUGH OF BLACKPOOL, classified according to DISEASES, AGES, and LOCALITIES.

	Population at all Ages.				New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the Several Localities for Treatment in Isolation Hospital.												
									Fevers.													Fevers.								
Names of Localities. a	Census 1891. b	Estimated to middle of 1895. c	Registered Births. d	Aged under 5 or over 5. e	Smallpox. 1	Scarlatina. 2	Diphtheria. 3	Membranous Croup. 4	Typhus. 5	Enteric or Typhoid 6	Continued. 7	Relapsing. 8	Puerperal. 9	Cholera. 10	Erysipelas. 11	Measles. 12	Rötheln. 13	Smallpox. 1	Scarlatina. 2	Diphtheria. 3	Membranous Croup. 4	Typhus. 5	Enteric or Typhoid 6	Continued. 7	Relapsing. 8	Puerperal. 9	Cholera. 10	Erysipelas. 11	Measles. 12	Rötheln. 13
Claremont Ward	3,464	4,586	109	Under 5		3				1						3														
				5 upwards		11	2			8						10	1						8							1
Talbot Ward (H)	6,390	8,330	273	Under 5		12										23														
				5 upwards	2	48	3			21			1			15							18							
Bank Hey Ward	2,036	2,316	33	Under 5												1														
				5 upwards		6				5																				
Brunswick Ward	4,095	5,372	115	Under 5		5										6														
				5 upwards	6	19				16						4							8							
Foxhall Ward	4,905	8,209	242	Under 5		5	2			1						14														
				5 upwards		26	1			19						13							10							
Waterloo Ward	2,956	4,130	104	Under 5		7	2			1						6														
				5 upwards		12	7			7						13	1						4							
Kirkham Workhouse (not in Borough)			6	Under 5																										
				5 upwards																										
TOTALS	23,846	32,943	882	Under 5		32	4			3						53														
				5 upwards	8	122	13			76			1			55	2						48							1

Infectious Diseases Hospital situated in Ward marked (H).

TABLE C.

POPULATION AND DEATH RATES (RESIDENTS) AT VARIOUS AGES.

	BLACKPOOL, 1895.									England and Wales 1881-90	England and Wales 1881-90
	Per cent. of population living at various ages.		Number estimated living in 1895.		Total Deaths.		Death Rate.		Death Rates of persons at different ages.	Death Rates of males living at different ages.	Death Rates of females living at different ages.
	Males	Females	Males	Females	Males	Females	Males	Females			
Under 5 years...	4·62	5·33	1522	1756	136	96	89·36	54·67	70·77	61·59	51·95
5 and under 25..	17·30	22·18	5699	7307	8	24	1·40	3·28	2·46	4·54	4·56
25 and under 65	19·10	27·50	6292	9059	85	95	13·51	10·49	11·73	15·19	12·92
65 and under 75	1·29	1·87	425	616	25	31	58·82	50·32	53·79	70·39	60·36
75 years and over	0·34	0·47	112	155	12	26	107·1	167·7	142·3	163·05	148·06

TABLE D.

ANALYSIS OF MORTALITY.

	BIRTH RATE.	Annual Rate of Mortality from						Proportion of Deaths under 1 year to 1,000 Births (Infant Mortality).	Percentage of Total Deaths						
		All Causes (gross D.R.)	All Causes (Corrected for Visitors.)	Seven principal Zymotics.	Pulmonary Consumption.	Other Diseases of the Lungs.	Heart Disease.		Of Infants under 1 year.	Under 5 years.	60 years and over.	From seven principal Zymotics.	From Pulmonary Consumption.	From other Lung Diseases.	From Heart Disease.
Average of 1881-85.	29·56	19·5	17·2	1·89	1·49	3·12	1·70	161	24·44	32·5	23·1	10·16	7·68	15·93	7·61
1886-90.	25·18	17·6	15·4	2·11	1·21	3·19	1·40	150	21·5	34·3	26·8	12·3	6·9	18·3	8·1
1891-95.	23·91	18·6	15·3	2·06	1·14	3·91	1·51	183·3	23·82	33·8	24·9	10·88	6·24	20·74	8·2
1891.	22·36	20·0	18·2	2·03	1·2	5·4	1·6	182	21·5	34·1	27·8	10·2	6·3	27·0	8·1
1892.	24·01	18·2	15·3	0·89	1·2	3·81	1·49	158	20·9	29·3	25·4	4·9	6·7	20·9	8·2
1893.	22·47	18·7	14·9	2·68	0·98	4·14	1·51	210·3	25·1	33·2	24·6	14·1	5·2	22·1	8·0
1894.	23·93	15·8	11·9	1·38	1·08	2·21	1·48	159·7	24·1	33·2	24·5	8·7	6·8	13·9	9·3
1895.	26·77	20·06	16·33	3·31	1·24	3·98	1·43	206	27·49	39·3	21·9	16·47	6·19	19·79	7·10

TABLE E.

BIRTHS AND DEATHS (RESIDENTS) IN EACH QUARTER OF THE YEAR 1895.

QUARTER ENDING	Births.	Deaths from All Causes.	Seven Principal Zymotic Diseases	Pulmonary Consumption.	Other Lung Diseases.	Heart Disease.	Total Deaths under 1.	Under 5.	65 years and over.
March 30th	225	138	10	10	28	11	27	44	31
June 29th............	199	130	12	11	30	9	35	53	26
September 28th ...	244	131	50	6	17	4	62	74	14
December 31st......	214	139	21	5	34	10	45	61	23
Totals	882	538	93	32	109	34	169	232	94

TABLE F.

SHEWING THE SEVERAL DEATH RATES (RESIDENTS) FOR EACH QUARTER IN THE YEAR 1895.

QUARTER ENDING.	Death Rate.		Infant Mortality	Per cent. of Total Deaths of Deaths.			
	From All Causes.	From 7 Zymotics.		From 7 Zymotics.	Of infants under 1 year.	Of Children under 5 years.	Of Persons 65 years and over.
March 30th ...	17·18	1·24	120	7·2	19·6	31·9	22·5
June 29th	15·83	1·46	176	9·2	26·9	40·8	20·0
Sept. 28th ...	15·95	6·09	254	38·2	47·3	56·5	10·7
December 31st	16·38	2·47	210	15·1	32·4	43·9	16·5

TABLE G.

DEATHS.	1888. Quarters.				Totals.	1889. Quarters.				Totals.	1890. Quarters.				Totals.	1891. Quarters.				Totals.	1892. Quarters.				Totals.	1893. Quarters.				Totals.	1894. Quarters.				Totals.	1895. Quarters.				Totals.
	1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4	
From all causes	61	75	100	86	322	102	88	124	92	406	110	112	110	119	451	98	158	128	123	507	123	110	131	124	483	116	115	173	128	532	103	124	132	122	481	156	165	179	161	661
Under 1 year	18	19	11	21	69	25	15	38	19	97	27	24	26	30	107	24	23	32	30	109	23	17	27	35	102	29	18	66	21	134	21	29	34	32	116	27	36	71	48	182
Under 5 years	20	28	23	32	103	39	31	49	28	147	43	37	35	41	156	31	50	45	47	173	31	24	41	47	143	42	26	79	30	177	29	41	43	47	160	46	59	89	66	260
60 years and over	17	20	24	23	84	25	16	31	31	103	33	27	35	34	129	36	33	36	35	140	33	38	22	37	130	27	29	35	40	131	26	30	33	29	118	47	40	26	32	145
From 7 Zymotics..........	6	4	14	10	34	10	8	19	5	42	14	8	18	7	47	7	4	24	17	52	2	1	11	10	24	10	7	49	9	75	6	6	20	10	42	12	14	58	25	109
,, PulmonaryConsumpt'n	1	6	8	8	23	9	8	7	6	30	5	7	7	8	27	5	10	10	7	32	11	5	12	5	33	6	5	9	8	28	9	10	4	10	33	14	11	9	7	41
,, Other Lung Diseases ..	14	19	12	17	62	22	10	10	22	64	29	29	9	28	95	29	68	11	29	137	29	25	17	31	102	43	32	14	29	118	18	14	12	23	67	31	40	26	34	131
,, Heart Disease........	4	9	10	7	30	11	4	14	10	39	8	13	9	7	37	6	13	11	11	41	10	7	17	6	40	6	19	10	8	43	10	13	13	9	45	12	13	9	13	47
,, 5 Zymotics	5	4	10	10	29	6	4	8	5	23	13	6	3	..	22	4	1	6	10	21	..	..	3	6	9	5	3	9	8	25	5	4	10	7	26	9	7	5	9	30
,, Diarrhœa	1	..	4	..	5	1	1	9	..	11	..	2	14	7	23	..	1	16	7	24	1	..	8	1	10	1	1	38	1	41	..	2	10	1	13	..	2	51	16	69
,, Whooping Cough	..	..	..	..	....	3	3	2	..	8	1	..	1	..	2	3	2	2	..	7	1	1	..	3	5	4	3	2	..	9	1	..	..	2	3	3	5	2	..	10

TABLE H.

Cases of Infectious Disease Notified during the Years, 1886-1895 (inclusive).

Disease.	1886. Quarters.				Totals.	1887. Quarters.				Totals.	1888. Quarters.				Totals.	1889. Quarters.				Totals.	1890. Quarters.				Totals.
	1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4	
Small-pox	1	..	..	..	1	..	..	..	..	....	..	..	..	..	....	..	..	..	..	....	..	..	..	..	....
Measles	27	152	37	17	233	4	19	13	1	37	6	2	16	64	88	13	26	26	115	180	125	28	17	3	173
Scarlet Fever ..	11	17	52	27	107	17	13	35	28	93	12	14	18	24	68	2	8	12	23	45	11	25	25	8	69
Diphtheria	1	11	13	2	27	1	1	4	3	9	16	3	7	6	32	5	7	7	10	29	7	4	4	1	16
Enteric Fever ..	8	2	4	4	18	1	4	10	2	17	4	..	9	43	56	19	7	11	2	39	2	3	18	9	32
Rötheln	1	..	..	..	1	..	3	..	..	3	..	..	..	..	....	4	3	2	4	13	1	1	..	..	2
Puerperal	1	..	..	..	1	..	..	..	..	....	..	2	..	..	2	..	1	1	2	4	..	1	2	1	4
					388					159					246					310					296

Disease.	1891. Quarters.				Totals.	1892. Quarters.				Totals.	1893. Quarters.				Totals.	1894. Quarters.				Totals.	1895. Quarters.				Totals.
	1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4		1	2	3	4	
Small-pox	..	..	..	..	....	..	..	..	..	....	..	4	..	2	6	7	8	5	..	20	..	1	7	..	8
Measles	10	25	73	138	246	11	6	20	11	48	4	25	88	5	122	2	102	205	11	320	28	20	50	10	108
Scarlet Fever ..	4	7	21	25	57	17	17	10	26	70	13	19	53	45	130	12	20	31	12	75	11	31	46	66	154
Diphtheria	4	4	..	1	9	3	2	3	3	11	2	1	6	3	12	5	1	4	1	11	3	6	4	4	17
Enteric Fever ..	9	3	7	10	29	6	4	12	14	36	9	3	15	15	42	5	1	11	43	60	24	13	14	28	79
Rötheln	..	..	..	..	....	..	..	1	..	1	..	..	3	..	3	..	6	2	..	8	..	1	..	1	2
Puerperal	..	..	..	..	....	..	1	..	..	1	2	1	..	1	4	1	..	..	..	1	..	..	..	1	1
					341					167					319					495					369

TABLE K.

	Population.	Rate per 1,000.				Total Births.	Total Deaths.	Infant Mortality per 1,000 Births.
		Births.	Deaths.		Seven Zymotics.			
			Gross.	Corrected.				
1878...	13,000	38·8	21·0	...	5·0	439	274	166
1879...	15,000	36·6	17·8	...	3·06	401	268	122
1880...	15,000	34·0	22·7	...	5·0	510	341	205
1881...	14,229	30·6	18·6	15·8	1·2	436	265	126
1882...	16,000	30·0	22·9	21·0	2·8	480	367	220
1883...	16,000	30·0	19·5	16·6	1·6	480	312	139
1884...	17,212	29·8	19·0	17·1	2·14	513	328	146
1885...	18,031	27 4	17·2	15·2	1·71	494	311	174
1886...	19,550	25·9	18·9	16·5	2·71	508	370	151
1887...	20,380	25·3	16·0	14·0	2·45	516	327	116
1888...	20,540	24·5	15·6	13·2	1·6	504	322	136
1889...	21,661	26·5	18·7	16·5	1·9	575	406	168
1890...	24,312	23·7	18·5	16·5	1·9	577	451	181
1891...	25,310	22·3	20·0	18·2	2·03	566	507	181
1892...	26,740	24.0	18·2	15·2	0 89	642	488	158
1893...	28,389	22·4	18·7	14·8	2·68	638	532	192
1894...	30,337	23·9	15·8	11·9	1·38	726	481	159
1895	32,943	26·7	2·006	16·33	3·31	882	661	206

TABLE L.

Shewing the Percentage of Total Deaths, of Deaths of Children under 5 Years of Age, and of Persons over 60 Years of Age.

	Total Deaths.	Under 5 Years of Age.	60 and over	Per cent. of Total Deaths, of Deaths	
				Under 5 years of Age.	60 and over.
1878	274	103	56	37·8	20·7
1879	268	93	50	34·7	18·6
1880	341	153	59	44·8	17·3
1881	265	80	61	30·1	23·0
1882	367	106	71	28·8	19·3
1883	312	106	76	33·3	24·3
1884	328	101	82	30·7	25·0
1885	311	123	74	39·5	23·7
1886	370	133	89	35·9	24·0
1887	327	107	99	33·0	30·0
1888	322	103	84	32·3	26·0
1889	406	147	93	36·2	22·9
1890	451	156	129	34·5	28·6
1891	507	173	141	34·1	27·8
1892	488	142	130	29·1	26·6
1893	532	177	131	33·2	24·6
1894	481	160	118	33·2	24·5
1895	661	260	145	39·3	21·9

METEOROLOGICAL OBSERVATIONS.

Lat.—53° 49'. Long.—5° 3' W.

	1894.	1895.
Mean Temperature (of Max. and Min. Combined)	49·05	47·66
Total Rainfall (in inches)	32·55	29·43

Bright Sunshine	H.	M.
1894	1310	12
1895	1470	3

1895.	Pressure of Atmosphere in month corrected for temp. and press.		Temperature of Air in Month.										Mean Humidity. Complete Saturation = 100.	Rainfall.				Bright Sunshine.	Amount of Cloud. 0=clear; 10=overcast 9 a.m.
			Means of				Absolute extremes of												
Month.	Mean.	Range	9 a.m.	All highest	All lowest	Daily Range.	Maximum	Date.	Min.	Date.	Range.		Amount (in inches).	No. of Rainy Days.	Maximum fall in one day.	Date.		
January ...	29·717	1·728	32·8	38·3	26·9	11·9	45·3	1st and 2nd	12·0	30th	33·3	89·1	2·69	20	0·51	16th	61·47	7
February ...	30·135	1·787	29·8	35·8	22·7	13·1	42·4	28th	9·9	8th	32·5	85·0	0·31	6	0·14	23rd	73·07	6
March	29·664	0·863	40·3	45·5	34·6	10·9	51·9	23rd	23·7	4th	28·2	89·0	3·31	20	0·86	24th	78·07	6
April.........	29·890	1·100	46·5	53·9	38·9	15·0	61·4	20th	30·0	3rd	31·4	79·4	2·16	12	0·63	25th	148·89	5·4
May	30·117	0·997	55·6	61 9	43·9	18·0	80·0	30th	35·6	20th	44·4	71·3	0·38	8	0·15	24th	221·58	5
June	30·069	0·879	59·6	65·4	49·4	16·0	77·9	26th	35·0	15th	42·9	74·5	1·45	9	0·74	28th	223·58	5
July	29 718	0·844	60·4	66·0	52·3	13·7	74·9	8th	43·9	31st	31·0	72·2	3·95	15	1·46	25th	190·55	6·2
August	29·825	1·008	60·9	67·1	54·1	13·0	76·9	17th	43·0	1st	33·9	77·4	3·07	20	0·90	26th	145·56	7·2
September	30·111	0·875	60·6	69·0	52·6	16·4	82·3	28th	40·0	20th	42·3	78·2	0·74	8	0·36	4th	168·83	5·9
October ...	29·809	1·474	45·5	52·4	38·9	13·5	69·2	1st	19·1	29th	50·1	83·7	5·11	23	1·01	2nd	102·58	6 7
November ..	29·831	1·494	45·5	50·7	39·7	11·0	59·0	15th	32·9	1st	26·1	86·0	3·25	18	0·59	16th	50·17	6·5
December...	29·745	1 372	39·4	44·3	34·8	9·5	53·0	4th	21·5	21st	31·5	87·5	3·01	17	0·77	12th	5·92	7 4

Direction of Wind at Blackpool during 1895.

1895.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	No, of days in each month.
January	3	1	6	1	7	1	1	...	1	...	...	...	4	...	3	3	31
February	1	1	8	2	5	...	1	1	...	...	...	...	3	...	6	...	28
March	2	...	2	...	1	1	2	1	5	1	2	...	8	...	4	2	31
April	1	2	1	1	5	...	...	1	4	...	3	...	11	...	...	1	30
May	1	...	...	3	2	1	1	2	...	...	1	1	10	3	5	1	31
June	...	...	..	...	2	...	...	...	4	1	2	...	16	1	3	1	30
July	...	...	...	...	1	...	2	1	4	2	2	2	13	1	1	2	31
August	...	...	...	...	...	...	2	2	4	3	4	3	13	...	...	...	31
September ...	...	...	...	1	...	3	8	1	1	1	4	2	5	...	4	...	30
October	3	...	3	...	3	1	4	1	1	...	2	...	5	1	3	4	31
November ...	...	..	4	2	6	...	3	...	3	...	8	1	1	...	2	...	30
December......	...	...	3	1	8	1	1	...	5	...	3	1	5	...	3	...	31
Totals......	11	4	27	11	40	8	25	10	32	8	31	10	94	6	34	14	365